

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1. (Currently Amended) A spinal prosthesis assembly comprising:
a left prosthesis body;
a left pedicle anchor coupled to the left prosthesis body;
an artificial left facet joint structure carried by the left prosthesis body;
a right prosthesis body;
a right pedicle anchor coupled to the right prosthesis body; and
an artificial right facet joint structure carried by the right prosthesis body, the artificial left and right facet joint structures each being configured to articulate with another spinal prosthesis assembly or with a natural articular process of an adjoining pedicle,
wherein the artificial left and right facet joint structures comprise a cup portion that is configured to articulate with another spinal prosthesis assembly or with portion of the natural articular process of an adjoining pedicle in a plurality of orientations.
2. (Original) A prosthesis assembly according to claim 1 wherein at least one of the artificial left and right facet joint structures is fixed to the respective one of the left and right prosthesis bodies.
3. (Original) A prosthesis assembly according to claim 1 wherein at least one of the artificial left and right facet joint structures is fixed to the respective one of the left and right prosthesis bodies by an adhesive or cement.
4. (Original) A prosthesis assembly according to claim 1 wherein at least one of the artificial left and right facet joint structures is fixed to the respective one of the left and right prosthesis bodies by mechanical attachment.

5. (Original) A prosthesis assembly according to claim 1 wherein at least one of the artificial left and right facet joint structures is removably carried by the respective one of the left and right prosthesis bodies.
6. (Original) A prosthesis assembly according to claim 1 wherein at least one of the artificial left and right facet joint structures is removably attached to the respective one of the left and right prosthesis bodies by frictional engagement.
7. (Original) A prosthesis assembly according to claim 1 wherein at least one of the artificial left and right facet joint structures is removably attached to the respective one of the left and right prosthesis bodies by a Morse taper.
8. (Original) A prosthesis assembly according to claim 1 wherein at least one of the artificial left and right facet joint structures comprises an insert fitted to the respective one of the left and right prosthesis bodies.
9. (Original) A prosthesis assembly according to claim 1 wherein at least one of the artificial left and right facet joint structures comprises an insert fitted by frictional engagement to the respective one of the left and right prosthesis bodies.
10. (Original) A prosthesis assembly according to claim 1 wherein at least one of the artificial left and right facet joint structures comprises an insert fitted by a Morse taper to the respective one of the left and right prosthesis bodies.
11. (Original) A prosthesis assembly according to claim 1 wherein at least one of the artificial facet joint structures comprises a removable insert fitted to the respective one of the left and right prosthesis bodies.
12. (Original) A prosthesis assembly according to claim 1 wherein at least one of the artificial left and right facet joint structures pivots with respect to the respective one of the left and right prosthesis bodies.

13. (Canceled)

14. (Previously Presented) A prosthesis assembly according to claim 1 wherein the left and right pedicle anchors include a screw adapted to be installed within the vertebral body at or near a pedicle.

15. (Previously Presented) A prosthesis assembly according to claim 1 wherein the left and right pedicle anchors include a stem adapted to be installed within the vertebral body at or near a pedicle.

16. (Previously Presented) A prosthesis assembly according to claim 1 wherein the left and right pedicle anchors include means for resisting rotation after installation in the vertebral body.

17. (Original) A prosthesis assembly according to claim 1 wherein at least one of the prosthesis bodies is fixed to the vertebral body by an adhesive or cement.

18. (Original) A prosthesis assembly according to claim 1 wherein the prosthesis body includes a bony in-growth material.

19-32. (Canceled)

33. (Original) A prosthesis assembly according to claim 1 wherein a connecting member joins the left and right prosthesis bodies without support by a lamina.

34. (Previously Presented) A prosthesis assembly according to claim 1, wherein the left and right prosthesis bodies include a caudal region that extends from the pedicle anchors toward a cephalad portion of the respective one of the left and right natural facet joints.

35. (Original) A prosthesis according to claim 34 wherein the respective one of the artificial left and right facet joint structures is carried on the caudal region and is adapted and configured to replace a natural articular process of a cephalad portion of the respective one of the left and right natural facet joints.
36. (Original) A prosthesis assembly according to claim 35 wherein the respective one of the artificial left and right facet joint structures is fixed to the caudal region.
37. (Original) A prosthesis assembly according to claim 35 wherein the respective one of the artificial left and right facet joint structures is fixed to the caudal region by an adhesive or cement.
38. (Original) A prosthesis assembly according to claim 35 wherein the respective one of the artificial left and right facet joint structures is fixed to the caudal region by mechanical attachment.
39. (Original) A prosthesis assembly according to claim 35 wherein the respective one of the artificial left and right facet joint structures is removably carried by the caudal region.
40. (Original) A prosthesis assembly according to claim 35 wherein the respective one of the artificial left and right facet joint structures is removably attached to the caudal region by frictional engagement.
41. (Original) A prosthesis assembly according to claim 35 wherein the respective one of the artificial left and right facet joint structures is removably attached to the caudal region by a Morse taper.
42. (Original) A prosthesis assembly according to claim 35 wherein the respective one of the artificial left and right facet joint structures comprises an insert fitted to the caudal region.

43. (Original) A prosthesis assembly according to claim 35 wherein the respective one of the artificial left and right facet joint structures comprises an insert fitted by frictional engagement to the caudal region.
44. (Original) A prosthesis assembly according to claim 35 wherein the respective one of the artificial left and right facet joint structures comprises an insert fitted by a Morse taper to the caudal region.
45. (Original) A prosthesis assembly according to claim 35 wherein the respective one of the artificial facet joint structures comprises a removable insert fitted to the caudal region.
46. (Original) A prosthesis assembly according to claim 1 wherein at least one of the artificial left and right facet joint structures pivots with respect to the respective one of the left and right prosthesis bodies.
47. (Canceled)
48. (Previously Presented) A prosthesis assembly according to claim 1 wherein at least one of the artificial left and right facet joint structures is made of at least one selected prosthetic material, the selected prosthetic material includes polyethylene, rubber, tantalum, titanium, chrome cobalt, surgical steel, bony in-growth material, artificial bone, or any combination thereof.
49. (Canceled)
50. (Withdrawn) A method of replacing, on a vertebral body, all or a portion of a cephalad portion of left natural facet joint and all or a portion of a cephalad portion of a right natural facet joint using the prosthesis assembly defined in claim 1 to provide improved support for the spinal column, the method comprising the steps of (i) removing all or a portion of the cephalad portions of the left and right natural facet joints from the vertebral body, and (ii) fixing the prosthesis

assembly as defined in claim 1 to the vertebral body to replace both removed cephalad portions of the left and right natural facet joints with the artificial facet joint structure.

51. (Withdrawn) A method according to claim 50 further including a step of removing at least part of an accessory process from the vertebral body.

52. (Withdrawn) A method according to claim 50 further including a step of removing at least part of a transverse process from the vertebral body.

53. (Withdrawn) A method according to claim 50 further including a step of removing at least part of a pedicle from the vertebral body.